

## **Effects of dietary inclusion of palm kernel cake and palm oil, and enzyme supplementation on performance of laying hens.**

### **ABSTRACT**

A total of 392 twenty eight week-old laying hens was used to study the effects of dietary inclusion of solvent extracted palm kernel cake (PKC) (0%, 12.5% and 25%) and enzyme (mixture of mannanase,  $\alpha$ -galactosidase and protease) supplementation (0 kg/t, 1 kg/t and 2 kg/t) on the performance of laying hens. The levels of PKC did not significantly influence nitrogen corrected true metabolizable energy (TMEn) of the diets. Enzyme supplemented PKC had significantly higher AME and TMEn values than PKC diets with no enzyme supplementation. Dietary inclusion of 12.5% and 25% PKC in the diets of laying hens did not adversely affect mean egg production or daily egg mass. However, layers consumed significantly more PKC-based diets and had significantly poorer feed conversion ratios (FCR) than controls. However, the feed intake and FCR of hens provided the 12.5% PKC-based diets with enzyme supplementation at 1 kg/t did not differ from the controls. Dietary inclusion of PKC or enzyme did not affect eggshell quality, but egg yolk colour was significantly paler when layers were fed the 25% PKC diet.

**Keyword:** Palm kernel cake; Enzyme; Laying hens.